

SEQUENCE LISTING

<110> Turley, Eva A.
Cruz, Tony F.

<120> COMPOSITIONS AND METHODS FOR TREATING
CELLULAR RESPONSE TO INJURY AND OTHER PROLIFERATING CELL
DISORDERS REGULATED BY HYALADHERIN AND HYALURONANS

<130> 910130.401C1

<140> US

<141> 2000-10-05

<160> 72

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<223> Peptide that binds a hyalauronan

<221> VARIANT

<222> (1)...(5)

<223> Xaa = any amino acid

<221> HELIX

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<223> Xaa = Lysine or Arginine

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Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa

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09685010-100500

<223> Xaa = any amino acid

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<223> Xaa = Lysine or Arginine

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<223> Xaa = Hydrophobic or neutral amino acid consisting of I,L,V,Q,S

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<223> Xaa = Lysine or Arginine

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09685040-100500

<223> Xaa = Hydrophobic or neutral amino acid consisting
of I,L,V,Q,S

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<223> Xaa = Lysine or Arginine

<400> 3

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Xaa | Xaa | Xaa | Xaa | Xaa | Xaa | Xaa | Xaa | Xaa | Xaa | Xaa |
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<223> Xaa = Lysine or Arginine

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
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| 1 | | | 5 | | | | | 10 | |

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 of I,L,V,Q,S

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 Met Met Thr Val Leu Lys Arg
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Met Met Thr Val Leu Lys Val Lys Arg Leu Arg
1 5 10

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Met Met Thr Val Leu Lys Val Lys Val Lys Arg Lys
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Met Met Thr Val Leu Lys Val Arg Lys Arg
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09685040-100500

<400> 10

Met Met Thr Val Leu Lys Val Arg Lys
1 5

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<213> Homo sapiens

<400> 11

Lys Leu Gln Ala Thr Gln Lys Pro Leu Thr Glu Ser Lys
1 5 10

<210> 12

<211> 12

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<213> Homo sapiens

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Val Ser Ile Glu Lys Glu Lys Ile Asp Glu Lys Ser
1 5 10

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<223> Peptide developed based upon the TAM domain.
(Transient Activator of MAP kinases)

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<222> (3)...(3)

<223> Xaa = Any amino acid

<400> 13

Val Ser Xaa Lys Glu Lys
1 5

<210> 14

<211> 23

<212> PRT

<213> Mus musculus

<400> 14

Lys Leu Gln Ala Thr Gln Lys Asp Leu Thr Glu Ser Lys Gly Lys Ile
1 5 10 15
Val Gln Leu Glu Gly Lys Leu
20

<210> 15

<211> 14

<212> PRT

<213> Mus musculus

09635040.100500

<400> 15

Lys Leu Gln Ala Thr Gln Lys Asp Leu Thr Glu Ser Lys Gly
1 5 10

<210> 16

<211> 25

<212> PRT

<213> Mus musculus

<400> 16

Val Ser Ile Glu Lys Glu Lys Ile Asp Glu Lys Cys Glu Thr Glu Lys
1 5 10 15
Leu Leu Glu Tyr Ile Gln Glu Ile Ser
20 25

<210> 17

<211> 12

<212> PRT

<213> Mus musculus

<400> 17

Val Ser Ile Glu Lys Glu Lys Ile Asp Glu Lys Cys
1 5 10

<210> 18

<211> 14

<212> PRT

<213> Homo sapien

<400> 18

Leu Lys Ser Lys Phe Ser Glu Asn Gly Asn Gln Lys Asn Leu
1 5 10

<210> 19

<211> 14

<212> PRT

<213> Homo Sapiens

<400> 19

Lys Leu Gln Val Thr Gln Arg Ser Leu Glu Glu Gln Lys Gly
1 5 10

<210> 20

<211> 14

<212> PRT

<213> Mus musculus

<400> 20

Leu Lys Ala Lys Phe Ser Glu Asp Gly His Gln Lys Asn Met
1 5 10

<210> 21

<211> 14

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<212> PRT
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<400> 21
 Gln Glu Arg Gly Thr Gln Asp Lys Arg Ile Gln Asp Met Glu
 1 5 10

<210> 22
 <211> 21
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<400> 22
 Gly Thr Leu Lys Leu Asp Lys Leu Gly Ser Gln Ala Asp Thr Gly Gln
 1 5 10 15
 Lys Glu Leu Lys Gln
 20

<210> 23
 <211> 20
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<400> 23
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 1 5 10 15
 Arg Ser Thr Leu
 20

<210> 24
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 <212> PRT
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<400> 24
 Lys Leu Arg Ser Gln Leu Val Lys Arg Lys Gln
 1 5 10

<210> 25
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 <223> Scrambled hyalauron binding peptide

<400> 25
 Arg Gln Lys Val Leu Lys Arg Gln Leu Lys Ser
 1 5 10

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00665040-100500

<220>

<223> Peptide that binds a hyalauronan

<400> 26

Cys Ser Thr Met Met Ser Arg Ser His Lys Thr Arg Ser His His Val
1 5 10 15

<210> 27

<211> 9

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<223> Peptide that binds a hyalauronan

<400> 27

Arg Gly Gly Gly Arg Gly Arg Arg Arg
1 5

<210> 28

<211> 9

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<223> Xaa = Any basic amino acid

<221> VARIANT

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<223> Xaa = Any amino acid other than an acidic amino acid

<221> HELIX

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<222> (9)...(9)

<223> Xaa = Any basic amino acid

<400> 28

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
1 5

<210> 29

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<222> (3)...(4)

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<400> 29

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1 5 10

<210> 30

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<223> Peptide composition that binds a hyalauronan

<400> 30

Lys Gln Lys Ile Lys His Val Val Lys Leu Lys
1 5 10

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<223> Peptide composition that binds a hyalauronan

<400> 31

Lys Leu Lys Ser Gln Leu Val Lys Arg Lys
1 5 10

0050010 100500

<210> 32
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<400> 32
 Arg Tyr Pro Ile Ser Arg Pro Arg Lys Arg
 1 5 10

<210> 33
 <211> 9
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 <223> Peptide composition that binds a hyalauronan

<400> 33
 Lys Asn Gly Arg Tyr Ser Ile Ser Arg
 1 5

<210> 34
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<400> 34
 Arg Asp Gly Thr Arg Tyr Val Gln Lys Gly Glu Tyr Arg
 1 5 10

<210> 35
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<220>
 <223> Peptide composition that binds a hyalauronan

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 Arg Arg Arg Cys Gly Gln Lys Lys Lys
 1 5

<210> 36
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<220>

09685040-400500

<223> Peptide composition that binds a hyalauronan

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Arg Gly Thr Arg Ser Gly Ser Thr Arg
1 5

<210> 37

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<223> Peptide composition that binds a hyalauronan

<400> 37

Arg Arg Arg Lys Lys Ile Gln Gly Arg Ser Lys Arg
1 5 10

<210> 38

<211> 10

<212> PRT

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<223> Peptide composition that binds a hyalauronan

<400> 38

Arg Lys Ser Tyr Gly Lys Tyr Gln Gly Arg
1 5 10

<210> 39

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<223> Peptide composition that binds a hyalauronan

<400> 39

Lys Val Gly Lys Ser Pro Pro Val Arg
1 5

<210> 40

<211> 9

<212> PRT

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<223> Peptide composition that binds a hyalauronan

<400> 40

Lys Thr Phe Gly Lys Met Lys Pro Arg
1 5

09685040 100500

<210> 41
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 <210> 42
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 Lys Val Gly Lys Ser Pro Pro Val Arg
 1 5

 <210> 44
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 His Arg Glu Ala Arg Ser Gly Lys Tyr Lys
 1 5 10

 <210> 45
 <211> 588
 <212> DNA
 <213> Homo sapien

 <220>

05685040 100500

<221> CDS

<222> (1)...(486)

<400> 45

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| gaa | ttc | gcg | gcg | gcg | tcg | acc | aac | aag | ccc | cct | gct | gtt | tcc | ccg | ggg | 48 |
| Glu | Phe | Ala | Ala | Ala | Ser | Thr | Asn | Lys | Pro | Pro | Ala | Val | Ser | Pro | Gly | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| gtg | gtc | tcc | cca | acc | ttt | gaa | ctt | aca | aat | ctt | cta | aat | cat | cct | gac | 96 |
| Val | Val | Ser | Pro | Thr | Phe | Glu | Leu | Thr | Asn | Leu | Leu | Asn | His | Pro | Asp | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| cat | tat | gta | gaa | aca | gag | aac | att | cag | cat | ctc | aca | gac | ccg | gct | cta | 144 |
| His | Tyr | Val | Glu | Thr | Glu | Asn | Ile | Gln | His | Leu | Thr | Asp | Pro | Ala | Leu | |
| | | 35 | | | | | 40 | | | | | 45 | | | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| gca | cat | gtg | gat | aga | ata | agc | caa | gcc | cgg | aaa | ctg | agt | atg | gga | tct | 192 |
| Ala | His | Val | Asp | Arg | Ile | Ser | Gln | Ala | Arg | Lys | Leu | Ser | Met | Gly | Ser | |
| | | 50 | | | | | 55 | | | | 60 | | | | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| gat | gat | gct | gcc | tac | aca | caa | gct | ctg | ctg | gtg | cac | cag | aag | gcc | agg | 240 |
| Asp | Asp | Ala | Ala | Tyr | Thr | Gln | Ala | Leu | Leu | Val | His | Gln | Lys | Ala | Arg | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| atg | gaa | cgg | ctt | caa | aga | gag | ctc | gag | atg | caa | aag | aaa | aag | ctg | gat | 288 |
| Met | Glu | Arg | Leu | Gln | Arg | Glu | Leu | Glu | Met | Gln | Lys | Lys | Lys | Leu | Asp | |
| | | | | 85 | | | | | 90 | | | | | 95 | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| aaa | ctc | aaa | tct | gag | gtc | aat | gag | atg | gaa | aat | aat | cta | act | cga | agg | 336 |
| Lys | Leu | Lys | Ser | Glu | Val | Asn | Glu | Met | Glu | Asn | Asn | Leu | Thr | Arg | Arg | |
| | | | 100 | | | | | 105 | | | | | 110 | | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| cgc | ctg | aag | aga | tca | aat | tcc | att | tcc | cag | ata | ccg | tca | ctc | gaa | gaa | 384 |
| Arg | Leu | Lys | Arg | Ser | Asn | Ser | Ile | Ser | Gln | Ile | Pro | Ser | Leu | Glu | Glu | |
| | | 115 | | | | | 120 | | | | | 125 | | | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| atg | cag | cag | ttg | aga | agt | tgt | aat | aga | caa | ctc | cag | att | gac | att | gac | 432 |
| Met | Gln | Gln | Leu | Arg | Ser | Cys | Asn | Arg | Gln | Leu | Gln | Ile | Asp | Ile | Asp | |
| | | | 130 | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| ttt | gac | tgc | tta | acc | aaa | gaa | att | gca | tct | ttt | tca | agc | ccg | agg | acc | 480 |
| Phe | Asp | Cys | Leu | Thr | Lys | Glu | Ile | Ala | Ser | Phe | Ser | Ser | Pro | Arg | Thr | |
| 145 | | | | | | 150 | | | | 155 | | | | | 160 | |

| | | | | | | | |
|-----|-----|------------|------------|------------|------------|------------|-----|
| aca | ttt | taaccccagc | gctattcata | acttttatga | caatattgga | ttttagggcc | 536 |
| Thr | Phe | | | | | | |

| | | | | | | |
|------------|------------|------------|------------|------------|----|-----|
| ctgtgccacc | aaaacccaaa | gatcaaaggt | ccaccatcaa | aggtcgacgc | gg | 588 |
|------------|------------|------------|------------|------------|----|-----|

<210> 46

<211> 162

<212> PRT

<213> Homo sapien

0055040-100500

<400> 46

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Phe | Ala | Ala | Ala | Ser | Thr | Asn | Lys | Pro | Pro | Ala | Val | Ser | Pro | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Val | Ser | Pro | Thr | Phe | Glu | Leu | Thr | Asn | Leu | Leu | Asn | His | Pro | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| His | Tyr | Val | Glu | Thr | Glu | Asn | Ile | Gln | His | Leu | Thr | Asp | Pro | Ala | Leu |
| | | 35 | | | | 40 | | | | | | 45 | | | |
| Ala | His | Val | Asp | Arg | Ile | Ser | Gln | Ala | Arg | Lys | Leu | Ser | Met | Gly | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asp | Asp | Ala | Ala | Tyr | Thr | Gln | Ala | Leu | Leu | Val | His | Gln | Lys | Ala | Arg |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Met | Glu | Arg | Leu | Gln | Arg | Glu | Leu | Glu | Met | Gln | Lys | Lys | Lys | Leu | Asp |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Lys | Leu | Lys | Ser | Glu | Val | Asn | Glu | Met | Glu | Asn | Asn | Leu | Thr | Arg | Arg |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Arg | Leu | Lys | Arg | Ser | Asn | Ser | Ile | Ser | Gln | Ile | Pro | Ser | Leu | Glu | Glu |
| | | 115 | | | | | 120 | | | | | | 125 | | |
| Met | Gln | Gln | Leu | Arg | Ser | Cys | Asn | Arg | Gln | Leu | Gln | Ile | Asp | Ile | Asp |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Phe | Asp | Cys | Leu | Thr | Lys | Glu | Ile | Ala | Ser | Phe | Ser | Ser | Pro | Arg | Thr |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Thr | Phe | | | | | | | | | | | | | | |

<210> 47

<211> 725

<212> PRT

<213> Homo sapiens

<400> 47

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ser | Phe | Pro | Lys | Ala | Pro | Leu | Lys | Arg | Phe | Asn | Asp | Pro | Ser | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Cys | Ala | Pro | Ser | Pro | Gly | Ala | Tyr | Asp | Val | Lys | Thr | Leu | Glu | Val | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Lys | Gly | Pro | Val | Ser | Phe | Gln | Lys | Ser | Gln | Arg | Phe | Lys | Gln | Gln | Lys |
| | | 35 | | | | 40 | | | | | | 45 | | | |
| Glu | Ser | Lys | Gln | Asn | Leu | Asn | Val | Asp | Lys | Asp | Thr | Thr | Leu | Pro | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Ala | Arg | Lys | Val | Lys | Ser | Ser | Glu | Ser | Lys | Lys | Glu | Ser | Gln | Lys |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Asn | Asp | Lys | Asp | Leu | Lys | Ile | Leu | Glu | Lys | Glu | Ile | Arg | Val | Leu | Leu |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Gln | Glu | Arg | Gly | Ala | Gln | Asp | Arg | Arg | Ile | Gln | Asp | Leu | Glu | Thr | Glu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | Glu | Lys | Met | Glu | Ala | Arg | Leu | Asn | Ala | Ala | Leu | Arg | Glu | Lys | Thr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ser | Leu | Ser | Ala | Asn | Asn | Ala | Thr | Leu | Glu | Lys | Gln | Leu | Ile | Glu | Leu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Thr | Arg | Thr | Asn | Glu | Leu | Lys | Ser | Lys | Phe | Ser | Glu | Asn | Gly | Asn | |
| 145 | | | | 150 | | | | | 155 | | | | | | 160 |
| Gln | Lys | Asn | Leu | Arg | Ile | Leu | Ser | Leu | Glu | Leu | Met | Lys | Leu | Arg | Asn |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Lys | Arg | Glu | Thr | Lys | Met | Arg | Gly | Met | Met | Ala | Lys | Gln | Glu | Gly | Met |

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[illegible]

| | | | | |
|---------------------|---------------------|-------------------------|--|-----|
| 610 | | 615 | | 620 |
| Ser Tyr Ala Lys Leu | Leu Gly His Gln Asn | Leu Lys Gln Lys Ile Lys | | |
| 625 | 630 | 635 | | 640 |
| His Val Val Lys Leu | Lys Asp Glu Asn Ser | Gln Leu Lys Ser Glu Val | | |
| | 645 | 650 | | 655 |
| Ser Lys Leu Arg Cys | Gln Leu Ala Lys Lys | Lys Gln Ser Glu Thr Lys | | |
| | 660 | 665 | | 670 |
| Leu Gln Glu Glu Leu | Asn Lys Val Leu Gly | Ile Lys His Phe Asp Pro | | |
| | 675 | 680 | | 685 |
| Ser Lys Ala Phe His | His Glu Ser Lys Glu | Asn Phe Ala Leu Lys Thr | | |
| | 690 | 695 | | 700 |
| Pro Leu Lys Glu Gly | Asn Thr Asn Cys Tyr | Arg Ala Pro Met Glu Cys | | |
| 705 | 710 | 715 | | 720 |
| Gln Glu Ser Trp Lys | | | | |
| | 725 | | | |

<210> 48
 <211> 631
 <212> PRT
 <213> Mus musculus

mouse

<400> 48

| | | | |
|---------------------|-----------------|---------------------|---------|
| Met Arg Ala Leu Ser | Leu Glu Leu Met | Lys Leu Arg Asn Lys | Arg Glu |
| 1 | 5 | 10 | 15 |
| Thr Lys Met Arg Ser | Met Met Val Lys | Gln Glu Gly Met Glu | Leu Lys |
| | 20 | 25 | 30 |
| Leu Gln Ala Thr Gln | Lys Asp Leu Thr | Glu Ser Lys Gly Lys | Ile Val |
| | 35 | 40 | 45 |
| Gln Leu Glu Gly Lys | Leu Val Ser Ile | Glu Lys Glu Lys Ile | Asp Glu |
| | 50 | 55 | 60 |
| Lys Cys Glu Thr Glu | Lys Leu Leu Glu | Tyr Ile Gln Glu Ile | Ser Cys |
| | 65 | 70 | 75 |
| Ala Ser Asp Gln Val | Glu Lys Cys Lys | Val Asp Ile Ala Gln | Leu Glu |
| | 85 | 90 | 95 |
| Glu Asp Leu Lys Glu | Lys Asp Arg Glu | Ile Leu Ser Leu Lys | Gln Ser |
| | 100 | 105 | 110 |
| Leu Glu Glu Asn Ile | Thr Phe Ser Lys | Gln Ile Glu Asp Leu | Thr Val |
| | 115 | 120 | 125 |
| Lys Cys Gln Leu Leu | Glu Thr Glu Arg | Asp Asn Leu Val Ser | Lys Asp |
| | 130 | 135 | 140 |
| Arg Glu Arg Ala Glu | Thr Leu Ser Ala | Glu Met Gln Ile Leu | Thr Glu |
| | 145 | 150 | 155 |
| Arg Leu Ala Leu Glu | Arg Gln Glu Tyr | Glu Lys Leu Gln Gln | Lys Glu |
| | 165 | 170 | 175 |
| Leu Gln Ser Gln Ser | Leu Leu Gln Gln | Glu Lys Glu Leu Ser | Ala Arg |
| | 180 | 185 | 190 |
| Leu Gln Gln Gln Leu | Cys Ser Phe Gln | Glu Glu Met Thr Ser | Glu Lys |
| | 195 | 200 | 205 |
| Asn Val Phe Lys Glu | Glu Leu Lys Leu | Ala Leu Ala Glu Leu | Asp Ala |
| | 210 | 215 | 220 |
| Val Gln Gln Lys Glu | Glu Gln Ser Glu | Arg Leu Val Lys Gln | Leu Glu |
| | 225 | 230 | 235 |
| Glu Glu Arg Lys Ser | Thr Ala Glu Gln | Leu Thr Arg Leu Asp | Asn Leu |
| | 245 | 250 | 255 |

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Leu Arg Glu Lys Glu Val Glu Leu Glu Lys His Ile Ala Ala His Ala
 260 265 270
 Gln Ala Ile Leu Ile Ala Gln Glu Lys Tyr Asn Asp Thr Ala Gln Ser
 275 280 285
 Leu Arg Asp Val Thr Ala Gln Leu Glu Ser Val Gln Glu Lys Tyr Asn
 290 295 300
 Asp Thr Ala Gln Ser Leu Arg Asp Val Thr Ala Gln Leu Glu Ser Glu
 305 310 315 320
 Gln Glu Lys Tyr Asn Asp Thr Ala Gln Ser Leu Arg Asp Val Thr Ala
 325 330 335
 Gln Leu Glu Ser Glu Gln Glu Lys Tyr Asn Asp Thr Ala Gln Ser Leu
 340 345 350
 Arg Asp Val Thr Ala Gln Leu Glu Ser Val Gln Glu Lys Tyr Asn Asp
 355 360 365
 Thr Ala Gln Ser Leu Arg Asp Val Ser Ala Gln Leu Glu Ser Tyr Lys
 370 375 380
 Ser Ser Thr Leu Lys Glu Ile Glu Asp Leu Lys Leu Glu Asn Leu Thr
 385 390 395 400
 Leu Gln Glu Lys Val Ala Met Ala Glu Lys Ser Val Glu Asp Val Gln
 405 410 415
 Gln Gln Ile Leu Thr Ala Glu Ser Thr Asn Gln Glu Tyr Ala Arg Met
 420 425 430
 Val Gln Asp Leu Gln Asn Arg Ser Thr Leu Lys Glu Glu Glu Ile Lys
 435 440 445
 Glu Ile Thr Ser Ser Phe Leu Glu Lys Ile Thr Asp Leu Lys Asn Gln
 450 455 460
 Leu Arg Gln Gln Asp Glu Asp Phe Arg Lys Gln Leu Glu Glu Lys Gly
 465 470 475 480
 Lys Arg Thr Ala Glu Lys Glu Asn Val Met Thr Glu Leu Thr Met Glu
 485 490 495
 Ile Asn Lys Trp Arg Leu Leu Tyr Glu Glu Leu Tyr Glu Lys Thr Lys
 500 505 510
 Pro Phe Gln Gln Gln Leu Asp Ala Phe Glu Ala Glu Lys Gln Ala Leu
 515 520 525
 Leu Asn Glu His Gly Ala Thr Gln Glu Gln Leu Asn Lys Ile Arg Asp
 530 535 540
 Ser Tyr Ala Gln Leu Leu Gly His Gln Asn Leu Lys Gln Lys Ile Lys
 545 550 555 560
 His Val Val Lys Leu Lys Asp Glu Asn Ser Gln Leu Lys Ser Glu Val
 565 570 575
 Ser Lys Leu Arg Ser Gln Leu Val Lys Arg Lys Gln Asn Glu Leu Arg
 580 585 590
 Leu Gln Gly Glu Leu Asp Lys Ala Leu Gly Ile Arg His Phe Asp Pro
 595 600 605
 Ser Lys Ala Phe Cys His Ala Ser Lys Glu Asn Phe Thr Pro Leu Lys
 610 615 620
 Glu Gly Asn Pro Asn Cys Cys
 625 630

<210> 49
 <211> 11
 <212> PRT
 <213> Homo sapien

<400> 49

Val Ser Ile Glu Lys Glu Lys Ile Asp Glu Lys
1 5 10

<210> 50

<211> 21

<212> PRT

<213> Unknown

<220>

<223> Peptide used in competition binding assay

<400> 50

Gln Glu Lys Tyr Asn Asp Thr Ala Gln Ser Leu Arg Asp Val Thr Ala
1 5 10 15
Gln Leu Glu Ser Val
20

<210> 51

<211> 32

<212> PRT

<213> Unknown

<220>

<223> Peptide used in competition binding assay

<400> 51

Lys Gln Lys Ile Lys His Val Val Lys Leu Lys Asp Glu Asn Ser Gln
1 5 10 15
Leu Lys Ser Glu Val Ser Lys Leu Arg Ser Gln Leu Val Lys Arg Lys
20 25 30

<210> 52

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR amplication of collagen I

<400> 52

cgatgtcgct atccagctga

20

<210> 53

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR amplication of collagen III

<400> 53

atcagtcagc catctaccac c

21

000500 100500 100500 100500

<210> 54
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer for PCR amplification of ED-1

<400> 54
 tggcaggaca gtagtcgc

18

<210> 55
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer for PCR amplification of ED-1

<400> 55
 aaggctgctg ttgaaaggac g

21

<210> 56
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Peptide that binds a hyalauronan

<400> 56
 Arg Gly Gly Gly Arg Gly Gly Arg Arg
 1 5

<210> 57
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Peptide that binds a hyalauronan

<400> 57
 Arg Gly Gly Gly Arg Gly Gly Gly Arg
 1 5

<210> 58
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Peptide that binds a hyalauronan

05685040 " 100500

<400> 58

Arg Gly Gly Gly Gly Gly Gly Arg
1 5

<210> 59

<211> 9

<212> PRT

<213> Homo sapien

<400> 59

Lys Leu Arg Ser Gln Leu Val Lys Arg
1 5

<210> 60

<211> 9

<212> PRT

<213> Homo sapien

<400> 60

Lys Gln Lys Ile Lys His Val Val Lys
1 5

<210> 61

<211> 9

<212> PRT

<213> Homo sapien

<400> 61

Arg Ser His Lys Thr Arg Ser His His
1 5

<210> 62

<211> 7

<212> PRT

<213> Homo sapien

<400> 62

Arg Pro His Phe His Lys Arg
1 5

<210> 63

<211> 11

<212> PRT

<213> Homo sapien

<400> 63

Arg Lys Ile Gln Lys His Lys Thr Ile Pro Lys
1 5 10

<210> 64

<211> 9

<212> PRT

<213> Homo sapiens

05685010 100500

<400> 64

Lys Val Gly Arg Lys Val Phe Ser Lys
1 5

<210> 65

<211> 9

<212> PRT

<213> Homo sapiens

<400> 65

Lys Cys Ser Val Gln Thr Leu Leu Arg
1 5

<210> 66

<211> 9

<212> PRT

<213> Homo sapiens

<400> 66

Arg Thr His Leu Lys His Val Leu Arg
1 5

<210> 67

<211> 9

<212> PRT

<213> Homo sapiens

<400> 67

Lys Asn Ala Ile Asn Asn Gly Val Arg
1 5

<210> 68

<211> 9

<212> PRT

<213> Homo sapiens

<400> 68

Lys Gly Gln Ile Asn Asn Ser Ile Lys
1 5

<210> 69

<211> 9

<212> PRT

<213> Homo sapiens

<400> 69

Arg Val Arg Gly Arg Ala Lys Leu Arg
1 5

<210> 70

<211> 15

<212> PRT

<213> Artificial Sequence

005040-100500

<220>

<223> Peptide that binds a hyalauronan

<400> 70

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Thr | Met | Met | Ser | Arg | Ser | His | Lys | Thr | Arg | Ser | His | His | Val |
| 1 | | | | 5 | | | | | 10 | | | | 15 | |

<210> 71

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Peptide that binds a hyalauronan

<400> 71

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Ser | Thr | Met | Met | Ser | Arg | Ser | His | Lys | Thr | Arg | Ser | His | His | Val |
| 1 | | | | 5 | | | | | 10 | | | | 15 | | |
| Cys | Ser | Thr | Met | Met | Ser | Arg | Ser | His | Lys | Thr | Arg | Ser | His | His | Val |
| | | | 20 | | | | | 25 | | | | | 30 | | |

<210> 72

<211> 12

<212> PRT

<213> Homo sapien

<400> 72

| | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ala | His | Trp | Gln | Phe | Asn | Ala | Leu | Thr | Val | Arg |
| 1 | | | | 5 | | | | | 10 | | |

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